## **AMENDMENTS TO THE SPECIFICATION:**

Please amend the paragraph beginning at page 1, line 7, as follows:

Electronic directories allow networked applications to access and manage items of information that represents entities such as people or items of equipment. The items of information are logically organisedorganized as a hierarchy of objects or entries in a directory information tree (DIT), where each object has a name (using naming attributes) and one or more other attributes. A directory service provides electronic access to aone or more distributed DITs, allowing one or more objects to be accessed by a directory service user performing a search on an object's name or theirits other attributes, for example.

Please amend the paragraphs beginning at page 5, line 4:

In accordance with <u>an exemplary embodiment of</u> the present invention, there is provided a directory system for providing directory services in a communications network, the directory system including a plurality of memory segments for storing respective subsets of directory data for each directory object.

The present <u>exemplary embodiment of the</u> invention also provides a directory system for providing directory services in a communications network, the directory system including a plurality of directory information tree (DIT) segments for storing hierarchical structure data for directory objects, a plurality of object segments for storing

management data for said directory objects, and a plurality of attribute segments for storing attribute data for said directory objects.

The present <u>exemplary embodiment of the</u> invention also provides a directory system for providing directory services in a communications network, the directory system including one or more messaging modules for providing transactional messaging services to users.

The present exemplary embodiment of the invention also provides a process for providing directory services in a communications network, including monitoring directory data stored in a plurality of memory segments; and redistributing at least a portion of said directory data in said plurality of memory segments based on said monitoring to improve performance of said directory services.

Please amend the paragraph beginning at page 8, line 29 as follows:

The directory system 100 is also based on a virtual machine environment and provides virtual machines that can operate on the local memory-resident database 124126 or make requests through the distributed directory infrastructure to other memory-resident database 126128 or 130132 hosted by the remote directory systems 102 to 106. The directory system 100 adaptively reconfigures the virtual memory segments based on usage patterns to reduce search and access times and improve performance of the system 100.

Please amend the title at page 109, before claim 1:

## CLAIMS: WHAT IS CLAIMED IS: